

## **Appendix MGS-1: Short Version**

### **Table of Contents**

**Page A1-**

1.	Proposed General Structure for Plan	
a.	Management Area Boundaries . . . . .	2
b.	Funding & Fee Structure . . . . .	3
c.	Plan Management . . . . .	3
2.	Prescriptions Specified for Land Managers	
a.	Bureau of Land Management Use Designations . . . . .	3
b.	Military . . . . .	4
3.	Prescriptions for Surveys	
a.	Surveys . . . . .	4
4.	Prescriptions for Non-Land-Use Impacts	
a.	Education . . . . .	4
b.	Predation . . . . .	4
5.	Prescriptions for Land-Use Impacts	
a.	Agriculture . . . . .	4
b.	Camping . . . . .	4
c.	Commercial Filming, Plant Harvest, etc. . . . .	5
d.	Construction Measures . . . . .	5
e.	Fire Management . . . . .	5
f.	Hunting & Shooting . . . . .	5
g.	Mining . . . . .	5
h.	Motorized Vehicle Access . . . . .	6
i.	Motorized Vehicle Events . . . . .	6
j.	Open Areas . . . . .	6
k.	Pipelines . . . . .	6
l.	Recreation . . . . .	6
m.	Research . . . . .	6
n.	Sheep & Cattle . . . . .	7
o.	Utility Corridors . . . . .	7
p.	Weeds . . . . .	8

## **Mohave Ground Squirrel Management Prescriptions**

### **“Short Version”**

During March and November 1998, November 1999, and May 2000 the West Mojave Plan Team (Team) and U.S. Fish and Wildlife Service (Service) met with the California Department of Fish and Game (Department) to discuss management prescriptions for the protection of the state-listed, threatened Mohave ground squirrel (*Spermophilus mohavensis*) (MGS or squirrel). A total of 135 prescriptions were identified in 1998 relative to the tortoise, about half of which, with some minor modifications, are considered relative to MGS conservation. The prescription number, which corresponds back to other appendices (including those for tortoises), is given in parenthesis at the end of each prescription. New prescriptions identified since the initial 1998 consultation are followed by “(200).” This “Short Version” provides only a list of management prescriptions proposed by the Department and Service. A “Tabulated Version” and “Long Version” provide more detailed information regarding formulation of these prescriptions.

#### **1. Proposed General Structure for Plan**

##### **a. Management Area Boundaries**

The evaluators recommend that a conservation area be established for the long-term survival and protection of the MGS. This MGS Conservation Area should include portions of the Fremont-Kramer and Superior-Cronese Tortoise DWMAs, and additional, essential habitats located west and north of the two Tortoise conservation areas. The MGS in all other areas would either be managed by the military or be available for incidental take subject to restrictions identified during the planning process.

Biological Transition Areas (1) should be established within one mile of the MGS Conservation Area; (2) would be available for incidental take; (3) should function to minimize impacts on the adjacent conservation area, which may call for higher development standards (i.e., more protective mitigation measures) than in other take areas; and (4) may require special review of proposed projects by the Plan’s Implementation Team.

An area of northeastern Los Angeles County should be designated for no zone change; existing zoning would apply to the area for the term of the Plan (expected to be 30 years). The approximate area (pending public input) is bounded to the west by Big Rock Creek, to the north by Edwards Air Force Base, to the east by the Los Angeles-San Bernardino County line, and to the south by the boundary of the planning area. This area is herein referred to as the “Los Angeles County Zone Maintenance Area.”

Trapping studies should be undertaken in the northern portion of Antelope Valley in Kern County. If these studies reveal that MGS occur, existing zoning should be maintained for the remaining term of the Plan. If the genetic make-up is determined to be significantly different from that of other MGS in the planning area, the area should be considered for conservation-area status or other protection

more restrictive than that provided by existing zoning. Herein, this area (yet to be delineated) is referred to as the “Kern County Study Area.”

**b. Funding & Fee Structure**

The public needs to decide on an appropriate fee structure. Evaluators suggest that fees be relatively higher in the MGS Conservation Area and relatively lower in Biological Transition Areas and other take areas. (3, 4)

Identify construction types and locations that would be exempt from fees or other mitigation; consider single-family scenario versus commercial, industrial, high density development (determine dichotomy or variable approach to fee requirements). (5)

Discuss mechanism for other funding sources, so that fees are not only based on new development and ground disturbance. (6)

Discuss mitigation and compensation strategies for projects in all management areas that would discourage but not prevent development inside the MGS Conservation Area. One example may be variable compensation: mitigate 1:1 outside the MGS Conservation Area and 10:1 inside. (25)

**c. Plan Management**

The West Mojave Implementation Team should be created to assist in carrying out project-specific measures for projects in the MGS Biological Transition Areas to ensure that the project’s indirect impacts do not adversely affect protection of the MGS in adjacent conservation areas. (29, 200)

The Service plans on providing at least two full-time people stationed in Barstow to implement the Plan and assist with and monitor on-the-ground compliance. (30)

The Department will consider the feasibility of providing permanent, dedicated position(s) towards implementation of the Plan and on-the-ground compliance. (31)

Increase the frequency of BLM ranger patrols in the MGS Conservation Area at sites where prohibited activities are identified. (36, 200)

**2. Prescriptions Specified for Land Managers**

**a. Bureau of Land Management Use Designations**

Multiple Use Classes identified in the CDCA Plan should be Class L or C (existing Wilderness) in the MGS Conservation Area. The MGS Conservation Area should be designated as an Area of Critical Environmental Concern (ACEC) for protection of the squirrel. (9 & 10)

Within the MGS Conservation Area, management prescriptions should be applied equally on public and private lands (e.g., if required, revegetation would occur on both public and private portions of a given pipeline). (86)

b. **Military**

Request (with help from the evaluators, if asked) military bases to provide information (including management zone boundaries) for analogous management areas on Edwards Air Force Base, China Lake Naval Air Weapons Station, and Fort Irwin (including Goldstone Deep Space Communications Complex) with those designated outside; (b) consider areas included in China Lake's biological opinion; (c) consider Edwards' INRMP and enforce biological opinions; etc. (53)

Applicable management prescriptions given in military INRMPs, Biological Opinions, etc. that would result in the conservation of MGS should be adopted and endorsed by the West Mojave Plan; specific management zones have been delineated for Edwards and China Lake. (54)

Develop specific mitigation measures for specific project types (pipelines, road-widening, etc.) that would be used inside and outside the bases. (56)

3. **Prescriptions for Surveys**

a. **Surveys**

Under the proposed conservation strategy, the Department would not require Cumulative Human Impact Evaluation Forms (CHIEFs) to be completed, nor would trapping be required. A brief site visit to determine if compensable habitat would be lost to a given project may be appropriate. (18, 19, 21, 23, & 79)

4. **Prescriptions for Non-Land-Use Impacts**

a. **Education**

The Plan could develop a curriculum on environmental education (or identify agencies to do this) that can be presented to school districts. (7)

The West Mojave Implementation Team should work with OHV groups (AMA, CORVA, etc.) to establish meaningful education brochures and mechanisms to discourage cross-country travel. (44)

Consider signing pertinent areas along the boundary of the MGS Conservation Area. (125)

b. **Predation**

i. **Feral and Free-Roaming Dogs**

Dogs off-leash accompanied by their owners would be allowed in all areas. (108)

5. **Prescriptions for Land-Use Impacts**

a. **Agriculture**

Loss of native habitat to new agriculture should be compensated by paying appropriate fees, restoring appropriate agricultural areas, or implementing other, appropriate compensation measures. Recommend discouraging new agriculture in the MGS Conservation Area. (80)

b. **Camping**

Inside the MGS Conservation Area, all vehicle camping, stopping, and parking should be restricted to previously disturbed areas within 50 feet of existing roads. (120, 200)

c. **Commercial Filming, Plant Harvest, etc.**

Commercial activities, such as commercial filming within MGS habitat, that result in ground disturbance or adverse effects may be allowed in the MGS Conservation Area but only if construction measures applicable to temporary construction impacts are applied. Plant harvesting in MGS habitat should not be allowed within the MGS Conservation Area. (132)

d. **Construction Measures**

Consider dichotomy between permanent impacts (solar power plant, facilities development, etc.) versus intrusive but temporary impacts (pipelines, fiber optic cable, etc.). Pipelines within the MGS Conservation Area should be revegetated; revegetation is recommended within Biological Transition Areas but not in other take areas. (26, 200)

Rather than focus on what will and will not be allowed, define general criteria: permanent versus temporary impacts, single time impacts (e.g., pipeline booster station) versus ongoing impacts (solar plant employing 100 workers) and discuss management prescriptions that would apply. (27)

Plan should develop standard mitigation measures for ground-disturbing construction projects, such as (a) pipelines, (b) parcel development, (c) mines, (d) highway construction and maintenance, etc. (28)

e. **Fire Management**

Wildland fire management should be allowed in all management areas. (91)

Fire suppression should be a mix of aerial attack with fire retardant, crews using hand tools to create firebreaks, and mobile attack engines limited to public roads and designated open routes. (92)

Use of earth-moving equipment or vehicle travel off public roads and designated open routes should not be allowed except in critical situations where needed to protect life and property. (93)

Incoming fire crews unfamiliar with habitat protection should receive an awareness program to minimize impacts. (94)

Post-suppression mitigation should include rehabilitation of firebreaks and other ground disturbances using methods compatible with management goals. (95)

f. **Hunting & Shooting**

Hunting should be allowed and regulated by current legislation. (122)

g. **Mining**

In the MGS Conservation Area, restoration under SMARA or other applicable laws should strive to reclaim lands to constitute MGS habitat as a goal. (116)

Identify areas for site-specific withdrawals from mineral entry to facilitate MGS conservation. If studies reveal an MGS source area that has been identified for mineral extraction but is not patented, consider mineral withdrawal for that specific location. Access for mineral development should be limited to designated open routes. Alternatively, all exploratory activities should be monitored to minimize impacts to the vegetation community. Working with the monitor, the project proponent should eliminate any roads or cross country tracks that result from exploratory activities. The goal is to eliminate these tracks so that they are not used for future travel through the area. (118, 200)

**h. Motorized Vehicle Access**

No vehicles should be allowed off designated routes in the MGS Conservation Area. (38)

Limited speed travel on designated, signed routes should be allowed in the MGS Conservation Area. (41)

Closure of routes as determined for route designation should be implemented. (42)

Travel in washes in the MGS Conservation Area should only be allowed in those washes that are signed as “open.” (45)

Cross-country vehicle travel should not be allowed for commercial activities in the MGS Conservation Area. (131)

**i. Motorized Vehicle Events**

No racing should be allowed in the MGS Conservation Area. (39)

Dual Sport events would be allowed year-round in non-MGS Conservation Areas, and only seasonally in the MGS Conservation Area; Dual Sport events in the MGS Conservation Area would be allowed in the period of September through December only; the prescriptions given in the biological opinion for tortoises should apply. (40, 200)

**j. Open Areas**

Consider impacts of applicable open areas, which include El Mirage, Spangler Hills, and Jawbone Canyon, and determine measures to minimize impacts. (32)

There should be no new open areas in the MGS Conservation Area. (200)

**k. Pipelines**

All pipeline alignments within the MGS Conservation Area should be revegetated; narrowing the ROW impact should be required. (89)

**l. Recreation**

Non-consumptive recreation (e.g., hiking, birdwatching, horseback riding, and photography) should be allowed within the MGS Conservation Area. (124)

**m. Research**

Focused MGS trapping studies should be performed along the northern boundary of the planning area in the Kern County portion of the Antelope Valley. Other field research designed to address questions regarding the biology of native species or regarding impacts of land-use practices on these species should be allowed in the MGS Conservation Area. (145, 200)

n. **Sheep & Cattle**

Measures applied by the CDCA Plan to govern sheep grazing within Tortoise habitat should also be applied throughout the MGS Conservation Area. These include the following:

- Allotments classified as ephemeral sheep operations will be managed under ephemeral authorizations. Authorizations will be issued after an interdisciplinary team, along with grazing operators involved, make a field examination of the allotment and determine whether production of 200 pounds per acre of dry weight will be available, except in the MGS Conservation Area, where a 350 pounds-per-acre requirement is specified.
- The allowable use would not exceed that which would leave an average of 350 pounds residual forage within the MGS Conservation Area at the end of the growing season.
- Turnout dates for sheep on ephemeral forage within the MGS Conservation Area will be determined by consultation with the grazing operator, BLM range conservationist, BLM wildlife biologist, and county agricultural extension agent. Turnout dates will be based on the emergence of the MGS (generally in late January or February) and availability of a minimum of 350 pounds per acre dry weight ephemeral forage.
- Grazing will be restricted to one pass by sheep in the MGS Conservation Area. Concentration areas for livestock will be designated, such as watering sites and sheep bedding areas.

When monitoring studies on key areas show over 50 percent use of key perennial species, [for the time being,], appropriate adjustments will be made to bring the use within carrying capacity. Initially, "key perennial species" will include winter fat (*Krascheninnikovia lanata*), spiny hopsage (*Grayia spinosa*) and saltbush species (*Atriplex* spp.). These are based on the research of Dr. Phil Leitner and may need to be changed under an adaptive management program if other perennial species are identified as being as important to MGS foraging ecology.

If BLM monitoring studies indicate that range conditions are not meeting standards, consider retiring ephemeral allotments covering those non-compliance areas during an *El Niño* event and subsequent year(s) to allow for recruitment of new perennial plants into that area. (97, 200)

The Plan should provide a mechanism for voluntary retirement of cattle allotments throughout the range of the MGS. (98)

Cattle grazing may occur in the MGS Conservation Area with adaptive prescriptions that protect the MGS and its habitats (e.g., variable management during drought years). (102)

Supplemental feed (hay, alfalfa, etc.) and food supplements (nitrogen supplements like molasses) should not be allowed in the MGS Conservation Area. (103)

The rancher should contact the BLM for range improvements requiring off-road use of equipment; routine maintenance should be restricted to existing roads; unreported off-road travel should be authorized to remove cattle carcasses (Reflects Current Management). (104)

Herding of cattle should be minimized, and cattle allowed to disperse throughout the area of use. Water sources should be sparsely distributed and of sufficient number to minimize focused impacts. (105)

o. **Utility Corridors**

Contingent corridors, identified in the CDCA Plan, should not be activated within the MGS

Conservation Area. (82)

Maintenance of existing utilities should be allowed and should require minimization of impacts to the MGS and its habitats; all maintenance activities should remain on existing access roads except for the point location of maintenance-related disturbance. (87)

Evaluators recommend supporting the CDCA designation and use restrictions for utility corridors (Reflects Current Management). (88)

Within existing corridors, attempt to use areas that are already disturbed rather than disturbing new areas within the two to three mile corridor. (90)

p.      **Weeds**

Invasive weeds should not be used in landscaping adjacent to the MGS Conservation Area; i.e., African daisies along roadways. (126)

Management prescriptions designed to minimize impacts associated with other threats, particularly OHV, grazing, fire, construction, etc. will assist in minimizing continued support of non-native species. (127)